

Good News Information on the AN/PSS-14 Hand Held Mine Detector

The Army recently introduced the AN/PSS-14 Mine Detector, which is an update from the previous AN/PSS-12 Mine Detector – the standard mine detector for the U.S. Army. AN/PSS-12 is designed to detect low-metal content mines which are surface laid or buried, as well as mines placed in fresh or salt water. Due to its compact, lightweight frame, the detector is ideal for fast and accurate terrain reconnaissance. The main technical features of the detector include: excellent discrimination independent of ambient temperature and battery condition; sensitivity independent of search head speed; low mutual interference between two detectors; simple discrimination control; and built-in test circuit that automatically checks function and battery condition.

In April 2004, Congress was informed of the U.S. Army and U.S. Marines Corps combat experiences with the AN/PSS-14 Hand Held Mine Detector. Approximately 200 AN/PSS-14 detectors have been produced and fielded to Army and Marine units in Afghanistan, Iraq and with the Marine Expeditionary Unit/Special Operations Capable (MEU/SOC). Engineer units in Afghanistan are utilizing the AN/PSS-14 to detect mines while conducting area clearance operations.

According to SFC Bantin, B Co. 41st Engineers, Bagram, Afghanistan, “A squad got stuck in a minefield just over a month ago. We got the call to go out and do an extraction for them. I took two of my best guys. They swept their way out to the vehicle. We just marked and bypassed our way through. Clayton found at least 4 mines with the AN/PSS-14, marked them and continued his way around them towards the vehicle. Once we got everyone safely out of the truck, we brought in an MCAP dozer to clear around the truck. Every mark on the ground was a mine. Everyone was extremely impressed.” In Iraq, the detectors are also being used to find mines and weapons caches.

The AN/PSS-14 Mine Detectors is proving to be a truly robust machine that provides a smooth transition from the AN/PSS-12. Spc. Fields with C Co. 27th Engineers, Bagram, Afghanistan said, “I feel confident with (the AN/PSS-14); it was easy to learn, and simple to use,”

The updated AN/PSS-14 provides even more benefits, as confirmed by LtCol M. A. Micucci, USMC "SAPPER 6", Commanding Officer, 2d Combat Engineer Battalion, “We currently have a platoon deployed with PSS-14s. The GPR (Ground Penetrating Radar) is a welcome addition to the mine detector's capabilities. The ability to detect changes in density has expanded the use of this mine detector. It has been integrated successfully in cordon and search operations to find contraband (such as hidden objects in haystacks, hollow walls of the mud buildings and compartments in the dirt floors of buildings). Combat engineers uncovered RPGs (Rocket Propelled Grenades) employing the radar during a cordon and search.”

The new and improved mine detector produces more precise readings and allows for more efficient movement in the field. “The radar lets us see density changes in the ground, and that is the difference between finding pieces of scrap metal, or an actual

mine,” said Spc. Gwinn Alva a combat engineer of C Co. 27th Engineers, Bagram, Afghanistan.

In addition to the increased efficiency, the AN/PSS-14 decreases the threat level to the war fighter in battle by providing Soldiers with the resources to uncover mines and other enemy contraband expediently. “Some feedback from my platoon in Afghanistan concerning the PSS-14...the Platoon Guide stated it was absolutely incredible. They would use the PSS-14 to quickly sweep up to suspected enemy sites searching for mines. They would then sweep inside and outside the dwelling for hidden weapons, false floors, etc. They actually found hidden weapons in haystacks, under the floor and in the walls. The PSS-14 is very versatile,” said Major Billy Short, S-3 Operations Officer, 2nd Combat Engineer Battalion, 2nd Marine Division.

With such positive feedback, the Army will be looking forward to further implementations in the field to protect the troops, increase certainty of mine locations and expand the use of the mine detectors. From these engineer units come lessons learned and benefits of the actual performance of the AN/PSS-14 in combat situations. In the words of Sgt. 1st Class John Mincey, senior instructor, U.S. Army Engineer Center, Fort Leonard Wood, MO, "It's hands-down the best mine detector in the world".